

Dye	ex	em	Used for
Calcofluor	380	475	Cell wall, Carbohydrates
Propidium iodide	493	535-617	DNA – dead cell Cell wall
Hoescht 33342	350	461	DNA
Erythrosine b	530	566	
Rhodamine b hexyl ester	546	568	Mitochondria, membranes
Di-o	488	506	membranes
Rhodamine b	553	627	
Trypan blue	/	/	Viability
Luminol	/	/	
Fm4-64	505	725	Cell membrane – Live
Fm4-64fx	505	725	Cell membrane – Fixable
Mitotracker green	490	516	mitochondria
Mitotracker red	581	644	mitochondria
100nm beads	various	various	
Actin green (phalloidin)	495	518	Actin
Eosin y	514	545	
Neutral red	552	636	Vacuole
Chicago sky blue/Niagra blue			cellulose/inhibitor of L-glutamate uptake
Basic fuchsin	561	593	mycobacteria lignin
Acid fuchsin	514	630	collagen
Carmine	450-460	~600	
Alcian blue	/		mucopolysaccharides glycosoaminoglycan
Thiazine red	535	610	amyloid
Fast green fcf			Masson's trichrome, histone
Nile blue	631	660	lipid nulceic acid
Acridine orange	502	650	nucleic acid – live cell
Saffranin	488	570	lignin
Gram's iodine	/		Gram stain, starch
Coumarin	410	450	
Fluorescein	495	520	
Auramine o	414	515	Bacterial cell wall, Suberin
Congo red	497	614	Chitin, Collagen, amyloid, starch
Toluidine Blue	/	/	Stains most things